

# CODING APPARATUS AND METHOD THEREOF FOR DETECTING AUDIO SIGNAL TRANSIENT

## Abstract

A coding apparatus includes a polyphase filter bank, a transient detector, and a coding processing unit. First, the coding apparatus performs a subband coding process according to an input signal to produce a plurality of subband samples, each subband sample having a plurality of frequency subbands. Following this, the coding apparatus performs a selection process to select a plurality of subband samples as reference sample data, and decides a block length of a window according to the energy sum of the frequency subband of the reference sample data in a predetermined frequency. Finally, the coding apparatus performs a transform process, according to the block length of the window decided in the selection process by a predetermined algorithm to transform the subband sample to an output signal.